

REMARKS

Claims 1-41 are pending. No amendments have been made by way of the present submission, thus, no new matter has been added.

In view of the following remarks, favorable action on the merits is respectfully solicited.

Issue with Respect to Sequence Listing

At page 2 of the outstanding Office Action the Examiner has asserted that the paper copy of the Sequence Listing and the computer readable form (CFR) are not the same. For instance, the Examiner asserts that the Sequence Listing as listed in SEQ ID NO: 4 differs.

Applicants respectfully traverse however, to correct this issue, enclosed herewith in full compliance with 37 C.F.R. 1.821-1.825 is a Substitute Sequence Listing to be inserted into the specification in place of the Sequence Listing of record. The Substitute Sequence Listing in no way introduces new matter into the specification. Also submitted herewith in full compliance with 37 C.F.R. 1.821-1.825 is a disk copy of the Substitute Sequence Listing. The disk copy of the Sequence Listing, file 2005-01-02 4614-0140PUS1.ST25.txt, is identical to the paper copy, except that it lacks formatting.

Accordingly, Applicants respectfully request that the Examiner acknowledge the compliance of the present Sequence Listing.

Election/Restriction

In the outstanding Office Action the Examiner has required Applicants to elect one of the following groups for prosecution on the merits.

Group I. Claims 7 and 38, drawn to a fluorescent protein having the amino acid sequence depicted in Figure 3 (SEQ ID NO: 18).

Group II. Claims 7 and 39, drawn to a fluorescent protein having the amino acid sequence depicted in Figure 4 (SEQ ID NO: 20).

Group III. Claims 7 and 40, drawn to a fluorescent protein having the amino acid sequence depicted in Figure 5 (SEQ ID NO: 22).

Group IV. Claim 11, drawn to a nucleotide sequence encoding a fluorescent protein having the amino acid sequence depicted in Figure 3 (SEQ ID NO: 18).

Group V. Claim 11, drawn to nucleotide sequence encoding a fluorescent protein having the amino acid sequence depicted in Figure 4 (SEQ ID NO: 20).

Group VI. Claim 11, drawn to a nucleotide sequence encoding a fluorescent protein having the amino acid sequence depicted in Figure 5 (SEQ ID NO: 22).

Group VII. Claim 18, drawn to a method for measuring protein kinase activity.

Group VIII. Claim 18, drawn to a method for measuring phosphatase activity.

Group IX. Claim 19, drawn to a method for measuring metabolic activity.

Group X. Claims 20, 21, and 34-37, drawn to a method for monitoring or detecting the expression of one or more genes in a living cell by measuring fluorescence of a protein or proteins encoded by the genes.

Group XI. Claim 22, drawn to a method for visualizing organelle or cell processes in living cells.

Applicants respectfully traverse.

Applicants respectfully submit that the Examiner has failed to give proper consideration to the linking claims of the present application. The Examiner has provided several different groupings of claims, for instance relating to different combinations of mutations within the present GFP molecule. However, Applicants respectfully submit that the present claims relate to various mutations in GFP all of which result in an increase in fluorescence

intensity. In a main embodiment, the mutation is located at position 1 preceding the chromophore. Several different chromophores are disclosed as well several different mutations at position 1. Additionally, several different source organisms are disclosed.

Each of these GFP molecules is structurally related in that they differ by, for example, the mutation of position 1 preceding the chromophore. However, all other portions are common to all GFP molecules. Further, each of these GFP molecules share the disclosed increased fluorescence intensity and therefore are not functionally unrelated.

As such, Applicants respectfully submit that the Examiner should search and consider all currently pending claims. However, in an effort to be fully responsive to the outstanding Office Action, Applicants hereby elect Group III, directed to the Leucine-Threonine-Tyrosine-Glycine (L-T-Y-G for amino acids 64-67) mutation as shown in SEQ ID NO: 22.

Applicants respectfully submit that this represents the F64L-S65T-GFP mutant. However, this is an election with traverse. Applicants respectfully submit that upon allowance of this elected subject matter the Examiner should expand the search to include other subject matter with the intent of finding the generic linking claims ultimately allowable. For instance, Applicants point out

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that the Examiner must take into consideration the fact that claims
1-6, 8-10, 12-17, 23-33 and 41 represent linking claims. These
claims should be searched and considered in their entirety.

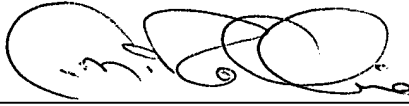
If the Examiner has any question or comments, please contact
Craig A. McRobbie (Registration No. 42,874) at the offices of
Birch, Stewart, Kolasch & Birch, LLP.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants
respectfully petition for a three (3) month extension of time for
filing a reply in connection with the present application, and the
required fee of \$1020.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this,
concurrent, and future replies, to charge payment or credit any
overpayment to Deposit Account No. 02-2448 for any additional fees
required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17;
particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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LRS/CAM:cms
4614-0140PUS1

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Attachments: Substitute Sequence Listing (paper and disk copy)